



## Transmission Business Line (TBL)

### Business Practice

### GENERATION IMBALANCE SERVICE, REVISION 1

For the 2004 Ancillary and Control Area Service Rate Schedules Effective October 1, 2003

Posted September 19, 2003

#### Revision Summary:

*This revision includes 1) Update section A and C.2 for changes due to the 2004 Rate case; 2) add the procedure for settling mismatches in section A.3.c; 3) add section A.6 on Exemption from Band 3 during the generator test period; 4) add section A.7 on Station Service and section A.8 on Spill Conditions.*

#### Table of Contents

A.	Generation Imbalance Service .....	2
1.	Generation Imbalance.....	2
2.	Generation Imbalance Deviation Bands .....	2
3.	Generation Imbalance Deviation Accounting.....	2
4.	Generation Imbalance Deviation Schedules Within Deviation Band 1 .....	3
5.	Generation Imbalance Deviations Outside Deviation Band 1 .....	4
6.	Exemptions from Deviation Band 3 During the Generator Test Period .....	4
7.	Station Service .....	4
8.	Spill Conditions .....	<u>54</u>
B.	Generation Imbalance for "Generation Behind the Meter" .....	5
C.	Intentional Deviation.....	<u>65</u>

## **A. Generation Imbalance Service**

The purpose of Generation Imbalance Service is to assure that the BPAT Control Area can maintain load-resource balance. Northwest interconnected loads and generators must be in a Western Electric Coordinating Council (WECC) certified Control Area. Generation Imbalance Service applies to such generation resources in the BPAT Control Area, except as specified in Section II of this business practice. The Generation Imbalance Service addressed in this business practice is described in the 2004 Transmission and Ancillary Services Rate Schedules, Ancillary and Control Area Services Rate, (ACS Rate Schedule) Section III.B.

Generation in the Control Area should produce energy in each hour equal to the sum of the generator's delivery schedules. Generation levels different from amounts scheduled will generally result in generators on Automatic Generation Control (AGC) deviating from Basepoint settings to maintain Control Area generation-load balance.

### **1. Generation Imbalance**

Generation Imbalance is a Control Area service taken by generation in the BPAT Control Area when there is a difference between the hourly energy scheduled and the hourly actual energy delivered from that generation. The treatment of deviations between scheduled and actual generation depends upon which deviation band is applicable, and whether the deviation is intentional.

Exclusion: Generation Imbalance Service is not taken (applied) for a Scheduling Hour during which the generator has a declared contingency occur and Operating Reserve Services (Spinning and Supplemental) are being supplied. If the generator recovers from the contingency such that no energy is taken during the Scheduling Hour, the Generation Imbalance Service will be applied.

### **2. Generation Imbalance Deviation Bands**

The Generation Imbalance Deviation Bands and the associated settlements are described in the ACS Rate Schedule. The customers are responsible for keeping track of their imbalances and scheduling Generation Imbalance deviation returns with BPAT.

### **3. Generation Imbalance Deviation Accounting**

- a. The Generation Imbalance amount is the difference between the scheduled generation energy (Generation Estimate) and the actual generation energy in each hour.
- b. Actual generation energy means kilowatt-hours of metered energy. The measurement interval is a clock hour. (The 60-minute period ending at HH:00:00.)
- c. The Generation Estimate is the generation sum of transmission schedules plus Payback Schedules. See section 4.a below for Payback Schedule definition. The Generation Estimate must be separately identified and entered into BPAT's Customer Web Interface (CWI) in accordance with BPAT's business practice on Reservations and

Scheduling Procedures. When the Generation Estimate is not equal to the sum of the transmission schedules plus Payback Schedules a mismatch occurs. If not corrected, an adjustment to the Generation Estimate will be made when the sum of transmission schedules plus Payback Schedules is greater than the Generation Estimate to make the Generation Estimate equal to the sum of the transmission schedules plus Payback Schedules. When the sum of the transmission schedules plus Payback Schedules is less than the Generation Estimate, no adjustment will be made.

- d. Within Deviation Band 1 account imbalances will be tracked separately for HLH and LLH. Deviations must be returned in like hours (either HLH or LLH).

**4. Generation Imbalance Deviation Schedules Within Deviation Band 1**

- a. For generators in the BPAT Control Area the following scheduling procedures for reducing Generation Imbalance deviation account balances shall apply:
  - (1) Generators submit hourly Generation Estimates to the BPAT Control Area. These estimates include energy serving the Transmission Customers' transmission schedules each hour. For the purpose of reducing the Deviation Band 1 accounts balances, a part of that estimate of total generation energy may also be a return schedule (Payback Schedule). Such Payback Schedules must be separately identified and entered into BPAT's CWI. Payback Schedules are not included in the interchange check out procedures.
  - (2) When the customer has a positive Deviation Band 1 account balance, the customer may return energy to BPAT to reduce the customer's balance from a positive number toward zero. In the CWI this is entered in the account payback for prior undergeneration (U/G), where actual generation has been less than the Generation Estimate. This Payback Schedule is always negative.
  - (3) When the customer has a negative Deviation Band 1 account balance, the customer may schedule energy from BPAT to the customer to reduce the customer's balance from a negative number toward zero. In the CWI this is entered in the account payback for prior overgeneration (O/G), where actual generation has been greater than the Generation Estimate. This Payback Schedule is positive.
  - (4) Subject to approval by BPAT, the customer may schedule energy as many times as necessary during the month to bring the Deviation Band 1 accounts to zero. The Payback Schedules to reduce the deviation accounts toward zero may not exceed one and one-half percent (1.5%) of the hourly Generation Estimate or 2 MW, whichever is larger. The Deviation Band 1 account

imbalances will be tracked separately for HLH and LLH.  
Deviations must be returned in like hours (either HLH or LLH).

- b. BPAT will charge for any costs resulting from failure to bring the account to zero at the end of each month pursuant to the ACS Rate Schedule, Section III.B.1.a.
- c. Any deviation account balance (carryover) remaining on September 30, 2003 will be settled financially as specified in section A.4.c of the Generation Imbalance Business Practice in effect on September 30, 2003.

**5. Generation Imbalance Deviations Outside Deviation Band 1**

Hourly Generation Imbalance deviations outside the Deviation Band 1 will be settled pursuant to the ACS Rate Schedule, Section III.B.

**6. Exemptions from Deviation Band 3 During the Generator Test Period**

New generators resources will usually go through a period of testing where the output of the plant may be erratic and forecasting hourly output is more difficult than after commercial acceptance. During the generator test period the generator will not be subject to Deviation Band 3. This policy applies to all types of electric generators.

- a. The generator owner or operator must provide a test plan to BPAT that reflects the expected commercial operation date of the generator. The test plan must be revised as needed to inform BPAT of changes in test conditions or the expected commercial operation date.
- b. The test period will begin on the day the generator produces its first power as determined by meters at the connection to the grid. The period of the exemption will end when commercial operation begins but not longer than 90 consecutive days from the beginning of the test period. In the case of a newly constructed generator the test period shall automatically terminate upon the date the project owner takes legal title to the facility, or has a right to take legal title, or assumes, or has the right to assume, operational control. The generator owner or operator must notify its BPAT Account Executive in writing of the beginning of commercial operation within one week of the event. Failure to do so will result in BPAT, at its discretion, applying the Band 3 charge to the resource after its actual date of commercial operation.

**7. Station Service**

Station service is power a generating plant uses for basic operation, or when a plant requires additional power on startup. When a generator is not operating all or part of the station service power may be supplied from the BPAT Control Area. This occurs when the net flow is into the plant. Energy Imbalance Service will apply when station service load is served by transmission schedules.

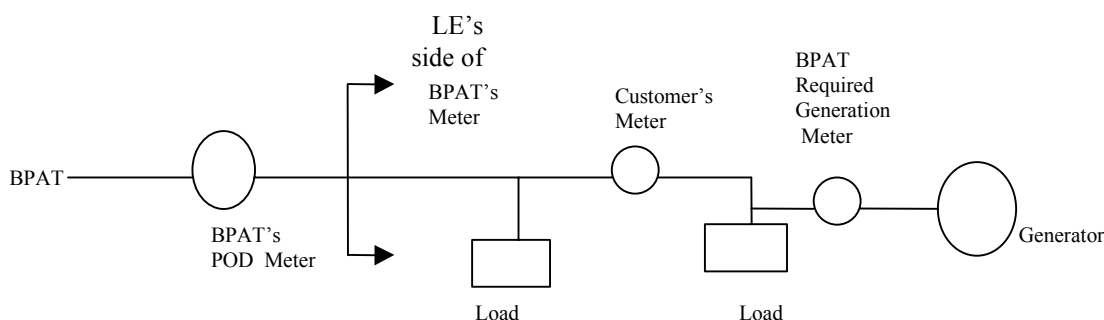
## 8. Spill Conditions

The settlement for days when the Federal System is in Spill condition is described in section III.B.2.b of the ACS Rate Schedule. No credit is given for negative deviations in any band or for negative Payback Schedules.

### B. Generation Imbalance for "Generation Behind the Meter"

Generation on the Load Entity's (LE)\* side of BPAT's Point-Of-Delivery (POD) meter is referred to as "generation behind the meter" or "internal generation". Both generation and load are in the BPAT Control Area for these examples. The LE's net load is metered at its BPAT PODs. When energy from the internal generation is delivered outside the LE's system, automatic hourly meter readings from the generation shall be sent to BPAT's control centers. The following diagram is provided for illustration purposes in reviewing the following subsections. Sections 1, 2, and 3, below apply to Bonneville Power Administration Power Business Line's full or partial Power Requirements customers not subject to the Energy Imbalance Service charges.

\* A Load Entity is a receiving party serving end-use loads from its distribution system.



1. Generation that is dedicated to serving the LE's load on the load side of BPAT's POD meter will be exempt from Generation Imbalance charges, i.e., no off-system deliveries.
2. If deliveries are scheduled from the LE's system, then the generation forecast must be established for that off-system delivery. Generation Imbalance charges apply to the extent that actual generation energy is less than the off-system delivery schedule. Generation amounts exceeding that schedule must serve load on the LE's side of the meter.
3. For generation where all of the energy produced is used for delivery outside of the LE's system or a fixed amount is scheduled to the LE then all of that generation must be scheduled. Generation forecasts will be required and Generation Imbalance Service will apply.
4. LEs receiving Energy Imbalance Service will not also be charged Generation Imbalance Service for internal generation.

**C. Intentional Deviation**

Intentional Deviation is defined in BPA's ACS Rate Schedule. Listed below are examples of behavior that BPAT may find to be Intentional Deviation. BPAT may find other deviations to be intentional as well. Intentional Deviation will result in a financial penalty as described in the ACS Rate Schedule and will apply to deviations in all bands.

1. Negative deviations (overgeneration) for 6 or more consecutive LLH hours.
2. Positive deviations (undergeneration) for 6 or more consecutive HLH hours.
3. Negative deviations for 3 or more consecutive days at a specific time of day.
4. Positive deviations for 3 or more consecutive days at a specific time of day.
5. Accumulated deviations for 3 consecutive periods (HLH, LLH, HLH) or (LLH, HLH, LLH) that are positive during the HLH period(s) and negative during the LLH period(s).
6. Large deviations in an hour(s) due to a transmission schedule or Generation Estimate not being submitted.